

### Abstract

#### Heat exchange tube bundle for regulating the temperature of the gases entering an internal combustion engine of a motor vehicle

The module comprises an intake air cooler (2) and a recirculated exhaust gas cooler (4). The intake air cooler (2) comprises an intake air inlet manifold (34) and an intake air outlet manifold (36). An inlet line (38) is connected to the inlet manifold (34) and an outlet line (40) is connected to the outlet manifold (36) of the feed air cooler (2). The recirculated exhaust gas cooler (4) comprises a recirculated exhaust gas inlet manifold (74) and a recirculated exhaust gas outlet manifold (76). A recirculated exhaust gas inlet line (42) is connected to the recirculated exhaust gas inlet manifold. A first bypass directly connects the inlet manifold to the outlet manifold of the recirculated exhaust gas cooler. Application to motor vehicles.

(Figure 1)